

Application No. 10/581988
Responsive to office action dated April 28, 2009

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Amendments to the Claims

Please amend the claims as per the following Listing of Claims, which shall replace all previous listings. No new matter has been added.

Listing of Claims

1. (Previously Presented) A medical tube comprising:

a mixture component including a polyimide resin and fluorine resin particles, the mixture component being heated and cured,

wherein the mixture component is heated and cured at an outer face of a core wire at a temperature exceeding a melting point of the fluorine resin particles, whereby

the tube comprises the mixture component including the polyimide resin and the fluorine resin particles,

the fluorine resin particles melt and are precipitated on at least one face of the tube, the at least one face being an inner face or both the inner face and an outer face of the tube,

the at least one face on which the fluorine resin particles melt and are precipitated is a low friction resistance face, and

the fluorine resin particles also are contained inside the polyimide resin.

2. (Currently Amended) The medical tube according to claim 1, wherein the inner face of the tube has a dynamic friction resistance that is 70% or less than that of the same tube made only of the polyimide resin alone ~~and containing no fluorine resin particles~~.

3. (Currently Amended) The medical tube according to claim 1, wherein the content of the fluorine resin ~~with reference to the polyimide resin taken as 100 parts by weight~~ is 3 to 50 parts by weight% relative to a content of the polyimide resin.

4. (Original) The medical tube according to claim 1, wherein the tube comprises a polyimide resin obtained by conversion to an imide by heating of a polyimide precursor

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solution including at least one type of aromatic tetracarboxylic acid dehydrate and at least one type of aromatic diamine.

5. (Original) The medical tube according to claim 1, wherein the fluorine resin particles are at least one selected from the group consisting of polytetrafluoroethylene (PTFE), tetrafluoroethylene-perfluoroalkylvinylether copolymer (PFA), polychlorotrifluoroethylene (PCTFE), tetrafluoroethylene-hexafluoropropylene copolymer (FEP) and tetrafluoroethylene-ethylene copolymer (PETFE).

6. (Original) The medical tube according to claim 1, wherein the medical tube is a catheter tube.

7. (Previously Presented and Withdrawn) A method for manufacturing a medical tube, comprising the steps of:

polymerizing aromatic tetracarboxylic acid dehydrate and aromatic diamine in a polar solvent to be a polyimide precursor solution;

adding fluorine resin particles in the polyimide precursor solution or during the polymerizing step to prepare a mixed solution of the polyimide precursor and the fluorine resin particles;

applying the mixed solution to an outer face of a core wire so as to have a predetermined thickness;

applying heat so as to allow conversion to an imide, where a highest temperature for the conversion to an imide is a temperature exceeding a melting point of the fluorine resin, whereby the fluorine resin particles melt and are precipitated on an inner face or on both the inner face and an outer face of the tube, the fluorine resin particles also are contained inside the polyimide resin; and

thereafter, separating the core wire and the medical tube.

8. (Withdrawn) The method for manufacturing a medical tube according to claim 7, wherein before the conversion to an imide or after completion of the conversion to an

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imide, a solution containing a polyimide precursor alone is applied again, followed by conversion to an imide.

9. (Withdrawn) The method for manufacturing a medical tube according to claim 7, wherein the fluorine resin particles are at least one powder selected from the group consisting of polytetrafluoroethylene (PTFE), tetrafluoroethylene-perfluoroalkylvinylether copolymer (PFA), polychlorotrifluoroethylene (PCTFE), tetrafluoroethylene-hexafluoropropylene copolymer (FEP) and tetrafluoroethylene-ethylene copolymer (PETFE).

10. (Withdrawn) The method for manufacturing a medical tube according to claim 7, wherein an average particle diameter of the fluorine resin particles is 0.1 to 25 μm .

11. (Previously Presented) The medical tube according to claim 1, wherein a dynamic friction resistance of the inner face of the tube is no higher than 0.26N and as low as 0.18N.